

**PART G-1
OUTDOOR HEAT EXPOSURE**

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**PART G-1
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WAC 296-307-097 Outdoor Heat Exposure

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-097, filed 03/19/09, effective 05/01/09.]

WAC 296-307-09710 Scope and purpose.

- (1) WAC 296-307-097 through 296-307-09760 applies to all employers with employees performing in an outdoor environment.
- (2) The requirements of WAC 296-307-097 through 297-307-09760 apply to outdoor work environments from May 1 through September 30, annually, only when employees are exposed to outdoor heat at or above an applicable temperature listed in Table 1.

Table 1

To determine which temperature applies to each worksite, select the temperature associated with the general type of clothing or personal protective equipment (PPE) each employee is required to wear.

Outdoor Temperature Action Levels

All other clothing	89°
Double-layer woven clothes including coveralls, jackets and sweat shirts	77°
Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits	52°

Note: There is no requirement to maintain temperature records. The temperatures in Table 1 were developed based on Washington state data and are not applicable to other states.

- (3) WAC 296-307-097 through 296-307-09760 does not apply to incidental exposure which exists when an employee is not required to perform a work activity outdoors for more than fifteen minutes in any sixty-minute period. This exception may be applied every hour during the work shift.
- (4) WAC 296-307-097 through 296-307-09760 supplement all industry-specific standards with related requirements. Where the requirements under these sections provide more specific or greater protection than the industry-specific standards, the employer shall comply with the requirements under these sections. Additional related requirements are found in chapter 296-305 WAC, Safety standards for fire fighters and chapter 296-307 WAC, Safety standards for agriculture.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09710, filed 03/18/09, effective 05/01/09.]

WAC 296-307-09720 Definitions.

Acclimatization means the body's temporary adaptation to work in heat that occurs as a person is exposed to it over time.

Double-layer woven clothing means clothing worn in two layers allowing air to reach the skin. For example, coveralls worn on top of regular work clothes.

Drinking water means potable water that is suitable to drink. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.

WAC 296-307-09720 (Cont.)

Engineering controls means the use of devices to reduce exposure and aid cooling (i.e., air conditioning).

Environmental factors for heat-related illness means working conditions that increase susceptibility for heat-related illness such as air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., heavy, medium, or low) and duration, and personal protective equipment worn by employees. Measurement of environmental factors is not required by WAC 296-307-097.

Heat-related illness means a medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.

Outdoor environment means an environment where work activities are conducted outside. Work environments such as inside vehicle cabs, sheds, and tents or other structures may be considered an outdoor environment if the environmental factors affecting temperature are not managed by engineering controls. Construction activity is considered to be work in an indoor environment when performed inside a structure after the outside walls and roof are erected.

Vapor barrier clothing means clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of nonbreathing clothing.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09720, filed 03/18/09, effective 05/01/09.]

WAC 296-307-09730 Employer and employee responsibility.

- (1) Employers of employees exposed at or above temperatures listed in WAC 296-307-09710(2) Table 1 must:
 - (a) Address their outdoor heat exposure safety program in their written accident prevention program (APP); and
 - (b) Encourage employees to frequently consume water or other acceptable beverages to ensure hydration.
- (2) Employees are responsible for monitoring their own personal factors for heat-related illness including consumption of water or other acceptable beverages to ensure hydration.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09730, filed 03/18/09, effective 05/01/09.]

WAC 296-307-09740 Drinking Water.

- (1) Keeping workers hydrated in a hot outdoor environment requires that more water be provided than at other times of the year. Federal OSHA and research indicate that employers should be prepared to supply at least one quart of drinking water per employee per hour. When employee exposure is at or above an applicable temperature listed in WAC 296-307-09710(2) Table 1:
 - (a) Employers must ensure that a sufficient quantity of drinking water is readily accessible to employees at all times; and
 - (b) Employers must ensure that all employees have the opportunity to drink at least one quart of drinking water per hour.

WAC 296-307-09740 (Cont.)

- (2) Employers are not required to supply the entire quantity of drinking water needed to be supplied for all employees on a full shift at the beginning of the shift. Employers may begin the shift with smaller quantities of drinking water if effective procedures are established for replenishment during the shift.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09740, filed 03/18/09, effective 05/01/09.]

WAC 296-307-09750 Responding to signs and symptoms of heat-related illness.

- (1) Employees showing signs or demonstrating symptoms of heat-related illness must be relieved from duty and provided with a sufficient means to reduce body temperature.
- (2) Employees showing signs or demonstrating symptoms of heat-related illness must be monitored to determine whether medical attention is necessary.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09750, filed 03/18/09, effective 05/01/09.]

WAC 296-307-09760 Information and training.

All training must be provided to employees and supervisors, in a language the employee or supervisor understands, prior to outdoor work which exceeds a temperature listed in WAC 296-307-09710(2) Table 1, and at least annually thereafter.

- (1) Employee training. Training on the following topics must be provided to all employees who may be exposed to outdoor heat at or above the temperatures listed in WAC 296-307-09710(2) Table 1:
- (a) The environmental factors that contribute to the risk of heat-related illness;
 - (b) General awareness of personal factors that may increase susceptibility to heat-related illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's responses to heat. This information is for the employee's personal use;
 - (c) The importance of removing heat-retaining personal protective equipment such as nonbreathable chemical resistant clothing during all breaks;
 - (d) The importance of frequent consumption of small quantities of drinking water or other acceptable beverages;
 - (e) The importance of acclimatization;
 - (f) The different types of heat-related illness, the common signs and symptoms of heat-related illness; and
 - (g) The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures.

- (2) Supervisor training. Prior to supervising employees working in outdoor environments with heat exposure at or above the temperature levels listed in WAC 296-307-09710(2) Table 1, supervisors must have training on the following topics:
- (a) The information required to be provided to employees listed in subsection (1) of this section;
 - (b) The procedures the supervisor must follow to implement the applicable provisions of WAC 296-307-097 through 296-307-09760;
 - (c) The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures; and
 - (d) Procedures for moving or transporting an employee(s) to a place where the employee(s) can be reached by an emergency medical service provider, if necessary.

[Statutory Authority: RCW 49.17.010, .040, .050, and .060. 09-07-098 (Order 08-21), § 296-307-09760, filed 03/18/09, effective 05/01/09.]